

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

THE SPECIFICATION

The specification has been amended to correct some minor informalities of which the undersigned has become aware. No new matter has been added, and it is respectfully requested that the amendments to the specification be approved and entered.

THE DRAWINGS

Fig. 12 has been amended to better accord with the description in the specification at page 25, line 13 to page 26, line 3, whereby a "NO" at step S40 leads to step S37, and whereby step S38 follows step S37. In addition, Fig. 16A has been amended to change S40 to S61 because S40 is already used to designate a step in Fig. 12.

Submitted herewith are corrected sheets of formal drawing which incorporate the amendments and annotated sheets showing the changes made thereto.

THE CLAIMS

Claim 1 has been amended to clarify the feature of the present invention whereby the object managing section includes

items of attribute data for the management objects, each of which includes a collection time required for collecting a corresponding management object, and whereby the collection time is for comparison with a reference collection time and wherein each of the items of classification data is determined by a result of comparison. In addition, claim 1 has been amended to include a part of the subject matter of claim 6, whereby the object managing section includes a processing section for classifying management objects whose collection time is shorter than the reference collection time to the specific type, and for collecting the management objects of the specific type from the managed device to store the collected management objects in the memory section before collecting a management object of a type other than the specific type.

In addition, claim 6 has been amended to be rewritten in independent form, and to clarify the feature of the present invention whereby the object managing section includes items of attribute data for management objects each of which includes (i) a collection time required for collecting a corresponding management object, and (ii) an access frequency of a collection request for the corresponding management object, and wherein the collection time is for comparison with a reference collection time and the access frequency is for comparison with a reference

access frequency, and each of the items of classification data is determined by a result of comparison.

Still further, claim 7 has been amended to be rewritten in independent form, and to clarify the feature of the present invention whereby the object managing section includes items of attribute data for management objects, each of which includes (i) a collection time required for collecting a corresponding management object, and (ii) a value change frequency of the corresponding management object, and wherein the collection time is for comparison with a reference collection time and the value change frequency is for comparison with a reference value change frequency, and each of the items of classification data is determined by a result of comparison.

Claims 10, 15 and 16, moreover, have been amended in a manner corresponding to claims 1, 6 and 7.

No new matter has been added, and no new issues with respect to patentability have been raised. Accordingly, it is respectfully requested that the amendments to claims 1, 5, 6, 10, 15 and 16 be approved and entered under 35 CFR 1.116.

CLAIM FEE

The application now contains 6 claims, of which 6 are independent. Accordingly, a claim fee in the amount of \$258.00 for the addition of 3 extra independent claims is attached

hereto. In addition, authorization is hereby given to charge any additional fees which may be determined to be required to Account No. 06-1378.

THE PRIOR ART REJECTION

Claims 1, 5-10 and 14-18 were again rejected under 35 USC 103 as being obvious in view of the combination of USP 5,822,535 ("Takase et al") and USP 5,845,080 ("Hamada et al"). This rejection, however, is respectfully traversed with respect to the claims as amended hereinabove.

According to the present invention as recited in amended claims 1, 6 and 7 (and corresponding amended claims 10, 15 and 16), the object managing section has items of classification data for classifying the plurality of management objects into types, for collecting those of the management objects in advance which are classified to a specific one of the types by the classification data to store the collected management objects in the memory section. (See, for example, the disclosure in the specification at page 11, line 18, to page 12, line 14; page 14, line 22, to page 15, line 11; and page 16, line 8, to page 17, line 17.)

According to the present invention as recited in amended claim 1 (and corresponding amended claim 10), moreover, the object managing section includes items of attribute data each representing an attribute of the corresponding management object,

wherein each of the attribute data items includes a collection time required for collecting a corresponding management object, and the collection time is for comparison with a reference collection time, and each of the classification data items is determined as a result of comparison.

Thus, according to the present invention as recited in amended claim 1 (and corresponding amended claim 10), management objects whose collection time is shorter than the reference collection time are classified to the specific type. When a management object of the type other than the specific type is requested by an object collection request, the object managing section collects the management objects of the specific type from the managed device to store the management object in the memory section before collecting the management object of the type other than the specific type. (See FIGS. 5, 6, 11 and 12.)

That is, the management objects of the specific type are collected from the managed device in advance and stored in the memory section. For example, as shown in Figs. 11 and 12 and as described in the specification at page 23, line 15 to page 27, line 20, when a management object of type A (having a long collection time) is requested (Step S34), the identifiers of the management objects of type B are read from the management table 20, and a collection request for the management objects of type B is sent. Then, a collection request is sent for the

management object with the received identifier, and a response is transmitted. Therefore, it is not necessary to independently perform the processes for storing the management objects in the management table in advance.

In addition, according to the present invention as recited in amended claim 6 (and corresponding amended claim 15), the object managing section includes items of attribute data each representing an attribute of the corresponding management object. Each of the attribute data items includes a collection time required for collecting a corresponding management object and an access frequency of a collection request for the corresponding management object. The collection time is for comparison with a reference collection time, and the access frequency is for comparison with a reference access frequency. And each of the classification data items is determined as a result of comparison.

Thus, according to the present invention as recited in amended claim 6 (and corresponding amended claim 15), management objects whose collection time is shorter than the reference collection time and whose access frequency is higher than the reference access frequency are classified to the specific type. When a management object whose collection time is not shorter than the reference collection time is requested by an object collection request, the object managing section collects the

management objects of the specific type from the managed device to store the management object in the memory section before collecting the management object whose collection time is not shorter than the reference collection time. (See FIGS. 13-16.) That is, as in the manner of the present invention according to amended claim 1 (and corresponding amended claim 10), the management objects of the specific type are collected from the managed device in advance and stored in the memory section.

Still further, according to the present invention as recited in amended claim 7 (and corresponding amended claim 16), the object managing section includes items of attribute data each representing an attribute of the corresponding management object. Each of the attribute data items includes a collection time required for collecting a corresponding management object and a value change frequency of the corresponding management object. The collection time is for comparison with a reference collection time, and the value change frequency is for comparison with a reference value change frequency. And each of the classification data items is determined as a result of comparison.

Thus, according to the present invention as recited in amended claim 7 (and corresponding amended claim 16), management objects whose collection time is shorter than the reference collection time and whose value change frequency is higher than

the reference value change frequency are classified to the specific type. When a management object whose collection time is not shorter than the reference collection time is requested by an object collection request, the object managing section collects the management objects of the specific type from the managed device to store the management object in the memory section before collecting the management object whose collection time is not shorter than the reference collection time. (See Figs. 15-18.) That is, as in the manner of the present invention as recited in amended claims 1 and 6 (and corresponding claims 10 and 15), the management objects of the specific type are collected from the managed device in advance and stored in the memory section.

Thus, according to the technique of the present invention claimed in each of amended claims 1, 6 and 7 (and each of corresponding amended claims 10, 15 and 16), even if a management object of the specific type is requested during the collection of the management object of the type other than the specific type, the management object of the specific type can be quickly retrieved from the memory section and transmitted. In addition, the memory capacity of the memory section can be reduced since management objects of the type other than the specific type are not stored in the memory section, along with the management objects of the specific type.

By contrast, Takase et al discloses that management objects are collected by a managed node 300 at specified time intervals for an accumulated number of times. (See col. 2, lines 55-61.) However, as recognized by the Examiner on page 3 of the Office Action, Takase et al does not disclose collection storage and update of a specific type of management object. For this reason, the Examiner has cited Hamada et al to supply the missing teach of Takase et al.

Hamada et al discloses partitioning attributes of management objects into attribute classes corresponding to demands for cache coherency (Abstract). In Hamada et al, caches 15 to 17 store sets of management information C0, C1, C2 based on attribute classes A to C, and the information is read upon receipt of a collection request. Thus, in Hamada et al, all of the management objects to be requested should be stored in the caches in advance. And it is therefore respectfully submitted that Hamada et al does not at all disclose, teach or suggest the feature of the present invention as recited the amended claims whereby when a management object of a type other than the specific type is requested by an object collection request, the object managing section collects the management objects of the specific type from the managed device to store the management object in the memory section before collecting the management object of the type other than the specific type.

In fact, it is respectfully submitted that Hamada et al teaches away from this feature of the present invention whereby a memory of the caches omits storage of management objects whose collection time (from a managed device outside the memory) is not shorter than a reference collection time, so that a collection request for a management object whose collection time is shorter than the reference collection time can be accepted during the collection of a management object whose collection time is not shorter than the reference collection time.

Accordingly, it is respectfully submitted that the combination of Takase et al and Hamada et al does not achieve the above described structural features and advantageous effects of the claimed present invention, and that each of amended independent claims 1, 5, 6, 10, 15 and 16 all patentably distinguish over Takase et al and Hamada et al, taken singly or in combination, under 35 USC 103.

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In view of the foregoing, entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

Application No. 09/626,820
Response to Final Office Action

Customer No. 01933

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,


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